KLEPTOPARASITISM BY KELP GULL *LARUS DOMINICANUS* ON COMMON TERN *STERNA HIRUNDO* AND SOUTH AMERICAN TERN *S. HIRUNDINACEA* ATTENDING COASTAL FISHERIES IN MAR DEL PLATA, ARGENTINA

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Kleptoparasitism, the stealing of already-procured food by individuals of the same or other species, is a widespread behaviour among birds (Brockmann & Barnard 1979). Such behaviour often occurs among seabirds and may be an important feeding technique of Laridae (gulls and terns), in which the habit has been recorded for more than 25% of the family (Furness 1987). Likewise, some species of gulls frequently engage in intra- and interspecific kleptoparasitism, and this behaviour can become an important feeding method during the breeding and non-breeding seasons for those birds. This note provides information about new records of kleptoparasitism by Kelp Gull *Larus dominicanus* on two species of tern.

Kleptoparasitism by Kelp Gulls was recorded in October and December 2007 and in March and April 2008 during a study on the interactions between marine wildlife and coastal fleets in waters off Mar del Plata port, Buenos Aires Province, Argentina (Seco Pon *et al.* unpubl. data). The study area is Argentina's most important coastal port, with about 60% of the coastal fleet based there (n = 190 vessels), and contributes *c.* 80% of the national coastal fishery catch (Lasta *et al.* 2001). These coastal vessels use a variety of fishing gear which is set against more than 50 commercial species year round (Perrotta *et al.* 2007). The observations of kleptoparasitism events occurred during experimental discarding of single fish (the bycatch fraction of the fishing vessels' catch), which had been identified and measured (total length measured to the nearest centimetre) and were then thrown overboard, where their fate (consumed, ignored, etc.) was followed by onboard observers (see Bertellotti & Yorio 2000).

On 30 October 2007, during experimental discarding from the boats, Kelp Gulls were noticed conducting kleptoparasitic attempts on other seabird species. The first kleptoparasitic attack was by a juvenile Kelp Gull which successfully attained a 10-cm Jenyns's Sprat *Ramnogaster arcuata* from a South American Tern *Sterna hirundinacea.* Almost two minutes later (e.g. experimental fish were discarded singly at 10-s intervals from one side of the boat during trawling operations), an adult Kelp Gull successfully robbed a 12-cm Jenyns's Sprat already picked up by a Common Tern *S. hirundo.* The observed kleptoparasitic attempts by Kelp Gulls involved aerial pursuits against the hosts that had procured the food (the "experimental fish") by plunge diving (*sensu* Ashmole 1971). Kleptoparasitism of both tern species by *L. dominicanus* occurred quite rapidly (i.e. both observed attempts lasted less than 20 s).

Although some seabirds, such as the abovementioned tern species, may be only sporadic members of particular avian assemblages [5.38% and 1.38% annual frequencies of occurrence for *S. hirundo* and *S. hirundinacea* respectively (Seco Pon *et al.* unpubl. data)], some members of seabird assemblages may change the foraging behaviour of their competitors (Burger 1988). In some regions of Argentina, Kelp Gulls are considered to be a "problem species," because they adversely affect other seabird species by predation and kleptoparasitism (Yorio & Quintana 1997, Yorio *et al.* 1998, Quintana & Yorio 1999). Accordingly, Amat and Aguilera (1989) suggested that the robbery of food could have a serious impact on the intake rate of the host. For instance, Martinez and Bachmann (1997), working in Mar Chiquita Lagoon, reported a food loss of 30% by the American Oystercatcher *Haematopus palliatus* because of *Larus* gull piracy, which resulted in a significant decrease in their intake rate as compared with oystercatchers feeding without kleptoparasites. Silva Rodríguez *et al.* (2000) noted that fish (mean length: 10.4 ± 4.5 cm) were the main prey item for Kelp Gulls on feeding grounds near Mar del Plata and that that species was the dominant vertebrate component following coastal vessels throughout the year; those observations were recently supported by Seco Pon *et al.* (unpubl. data).

Favero *et al.* (2000) reported that the natural diet of South American Tern during the non-breeding season at Mar del Plata is entirely composed of fish (100% of frequency of occurrence). Likewise, Mauco and Favero (2004) noted that the diet of Common Tern during the off-breeding year within the Mar Chiquita Lagoon (37 km north of Mar del Plata) is also composed largely of fish (97% frequency of occurrence). The average length (mean value ± one standard deviation) of overall fish prey was 9.2 ± 3.3 cm and 8 ± 1.7 cm for the South American and Common Terns respectively (Favero *et al.* 2000, Mauco & Favero 2004). Hence, it has been suggested that the Common Tern shares the same range of prey types with other seabirds in the area, chiefly the South American Tern (Mauco & Favero 2004). Nevertheless, both tern species are temporally segregated in southeast areas of Buenos Aires Province

(Silva Rodríguez *et al.* 2005). In Argentina, the South American Tern breeds chiefly in Patagonia; the Common Tern is a nearctic migrant (Silva Rodríguez *et al.* 2005).

The Mar del Plata port is one coastal area recently identified as an Important Bird Area within Buenos Aires Province (Di Giacomo 2005), and knowledge on the ecologic interactions between the local marine wildlife remains scarce. The surrounding areas are regularly used by at least 60 species of seabirds and shorebirds that exploit this site as foraging quarters throughout the year (Savigny & Favero 2005), some of which are considered globally Threatened by the International Union for Conservation of Nature and Natural Resources Red List of Threatened Species (BirdLife International 2000). Detailed ecological information from regular monitoring and active research is needed to improve the long-term conservation of these important areas for birds (Di Giacomo 2005). The present communication will contribute to site-oriented conservation actions that should address further studies on the interactions of seabirds attending coastal vessels and an evaluation of the impact of Kelp Gulls on the foraging behaviour of seabird species in waters off the port of Mar del Plata.

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